



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,635	07/08/2003	Robert R. Hollis	48899/WPC/A647	1437
23363	7590	08/27/2004	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			ISSING, GREGORY C	
PO BOX 7068			ART UNIT	
PASADENA, CA 91109-7068			PAPER NUMBER	

3662

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,635

Applicant(s)

HOLLIS ET AL.

Examiner

Gregory C. Issing

Art Unit

3662

ML

~ The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/12/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 3662

1. Initially it is noted that the claims are directed to a plurality of different inventions including (1) a location device, (2) a computer with a voice recorder, (3) a computer with voice recognition, (4) a computer with a camera, (5) a method of recording data, and (6) a computer with a speaker. Applicants are required to conform the claims such that the claims are directed to a single invention. In view of the breadth of scope of the claims and the cited prior art, a restriction requirement will be held in abeyance until a further time. However, any response hereto should conform the claims to a single invention.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Brown (6,701,252).

Art Unit: 3662

Brown discloses a waterproof GPS receiver adapted for use with a PDA which includes a processor to convert GPS signals into navigation data. Official notice is taken with respect to the scope of conventional GPS navigation data as including 1-, 2-, or 3-dimensional position and time information wherein in marine environments where there are no buildings and trees to obscure the line of sights between satellites and receiver, it is conventional that four or more satellites are in view and thus capable of three-dimensional location and time on the surface of the water.

Moreover, Brown discloses a pressure transducer assembly 9 such that the GPS display enclosure is capable of displaying depth, plot dive profiles, and calculate nitrogen saturation levels and decompression requirements (col. 5). Further devices may be adapted for use therewith including keyboards, microphones, metal detectors, bar code readers, sensors, ultrasonic probes, audio recorders, and camera assembly (claim 6). The device allows photographing, tagging and recording of underwater sites while associating such with navigation data provided by the GPS receiver (col. 5). Brown clearly anticipates (1) the claimed "position location device" comprising a processor, GPS receiver, pressure transducer as well as recording of such data for later retrieval as well as (2) the claimed "dive computer" including a processor, memory, pressure transducer and microphone as well as (3) the claimed "dive computer" for measuring depth and capturing images, as well as (4) the claimed "dive computer" for performing a GPS measurement and subsequent measurement of depth and time.

4. Claims 1-3, 5, 8, 9, 11-14, 16, 24-28, 31 are rejected under 35 U.S.C. 102(e) as being anticipated by McGeever, Jr.

5. McGeever, Jr. discloses a navigational device for a diver wherein GPS position and time are stored along with conventional diving data [0074] to enable a diver to descend or ascend to a particular location. The diving computer meets the scope of the claimed subject matter.

6. Claims 21-23 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Nehemiah.

Art Unit: 3662

Nehemiah et al disclose an underwater diving assistant apparatus including, as exemplified in Figure 4, camera 574, pressure/temperature sensor 568, compass 562, locator 554, input means 550b/550a/538, processor 502, memory 504/506/508, and speaker 522. Plural underwater devices may communicate via ultrasonic transducers 530 for detecting sound. The display forms a basic writing slate for the diver to use as an electronic message pad wherein messages are written for display can be shown to a dive buddy, stored for later recall and/or transmitted to a corresponding unit of a dive buddy. Preprogrammed emergency messages may be sounded and/or displayed. The microprocessor is programmed to carry out monitoring and controlling functions. The conventional dive computer functions are displayed including compass reading, dive time and depth information. The embodiment of transmitting a code to another diver which would bring up a prestored message meets the scope of detecting sound and selecting an option in response thereto since the code is transmitted via sound using the ultrasonic transducer.

7. Claims 1-3, 5, 8, 10-14, 23, 24-27, 30, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Etheridge.

Etheridge discloses a portable computer for use by Navy SEALs for possible uses of providing a one-man computer to reduce the time needed to check out a diving vehicle. Stored data as determined from a GPS receiver includes longitude/latitude, as well as an altimeter, which is a pressure transducer, provides altitude for a parachute jump or inherently depth for a dive. Position guidance is disclosed as well as the combination therewith of a digital camera, compass, and a floating pop-up GPS antenna.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3662

9. Claims 1-20 and 24-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nehemiah et al in view of King.

10. Nehemiah et al differ from the claimed subject matter since the diver is not located with respect to longitude and latitude and furthermore via a GPS receiver. Rather, the diver is located relative to any of a plurality of ultrasonic transmitters. King discloses a SCUBA computer integrating a GPS receiver 32, compass 18, acoustic sensor 42, depth indicator 40, flowmeter 26, microcomputer 40, display 36 and user interface 41. A typical use is explained in [0022]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Nehemiah et al by incorporating the teachings of King so that an accurate indication of location is provided via GPS such that an accurate tagging of a dive log may be obtained without requiring the installation of a plurality of ultrasonic transmitters/transponders on the seabed.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

An article dated 3/15/01 entitled DiveComputer for the PalmPilot describes a divelog program to store and view dive profile information.

DiveBuddy Basic 2.1.3 is directed to Palm based logbook for logging recreational dives. This system by Magayon includes a product called GPS buddy which provides a GPS PDA with "sticky notes".

McLaren discloses a diving navigation system including a diver device, as shown in Figure 5, including acoustic sensor 114, air tank pressure sensor 130, depth gauge 126, heading indicator 124, memory 120, operator interface 122, DSP 106/CPU 102. The processor determines and stores the position of the diver using GPS positions of transmitting buoys and times of arrival information associated with signals therefrom. Desired routes can be stored in the memory so as to route the diver to predetermined locations.

Art Unit: 3662

Geil discloses an underwater tape recorder/unscrambler including a microphone 19, storage means 24, voice operated switch 36, pressure-responsive depth sensor 42, and drive 25/controller 26/motor control 39/play motor 41 which meets the scope of a processor, i.e. takes input information, applies a process thereto, and provides outputs. The device can be used to provide a documentary record of a scientific or exploratory dive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is 703-306-4156. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 703-306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gregory C. Issing
Primary Examiner
Art Unit 3662

gci